

**APPENDIX XXI**

Serial No.: 09/520,032

Docket No.: 49933US031

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Office Action mailed from the U.S. Patent and Trademark Office on August 11,  
2003.

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# UNITED STATES PATENT AND TRADEMARK OFFICE

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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/520,032	03/06/2000	Timothy L. Hoopman	49933USA6H	9385

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45031

EXAMINER

LEYSON, JOSEPH S

ART UNIT PAPER NUMBER

1722

DATE MAILED: 08/11/2003

Please find below and/or attached an Office communication concerning this application or proceeding.

**Office Action Summary**

Application No.

09/520,032

Applicant(s)

HOOPMAN ET AL.

Examiner

Joseph Leyson

Art Unit

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☒ Responsive to communication(s) filed on 01 July 2003.
- 2a) ☐ This action is FINAL. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 17, 19-21, 25-28, 33-54, 94-96 and 98-111 is/are pending in the application.

4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.

- 5) ☒ Claim(s) 19 is/are allowed.
- 6) ☒ Claim(s) 17, 20, 21, 25-28, 33-54, 94-96 and 98-111 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- 11) ☐ The proposed drawing correction filed on \_\_\_\_\_ is: a) ☐ approved b) ☐ disapproved by the Examiner.  
If approved, corrected drawings are required in reply to this Office action.
- 12) ☐ The oath or declaration is objected to by the Examiner.

**Priority under 35 U.S.C. §§ 119 and 120**

- 13) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).  
a) ☐ All b) ☐ Some \* c) ☐ None of:  
1. ☐ Certified copies of the priority documents have been received.  
2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.  
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).  
\* See the attached detailed Office action for a list of the certified copies not received.
- 14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).  
a) ☐ The translation of the foreign language provisional application has been received.
- 15) ☒ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

**Attachment(s)**

- 1) ☐ Notice of References Cited (PTO-892) 4) ☐ Interview Summary (PTO-413) Paper No(s). \_\_\_\_\_
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948) 5) ☐ Notice of Informal Patent Application (PTO-152)
- 3) ☒ Information Disclosure Statement(s) (PTO-1449) Paper No(s) 37. 6) ☐ Other:

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1. A request for continued examination under 37 CFR 1.114 was filed in this application after appeal to the Board of Patent Appeals and Interferences, but prior to a decision on the appeal. Since this application is eligible for continued examination under 37 CFR 1.114 and the fee set forth in 37 CFR 1.17(e) has been timely paid, the appeal has been withdrawn pursuant to 37 CFR 1.114 and prosecution in this application has been reopened pursuant to 37 CFR 1.114. Applicant's submission filed on 7 July 2003 has been entered.

2. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless -

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

3. Claims 25-28 and 94-96 are rejected under 35 U.S.C. 102(b) as being anticipated by Rochlis(-583).

Rochlis(-583: figs. 21 and 22) teaches a production tool suitable for use in manufacturing an abrasive article (col. 1, lines 50-56) which includes a plurality of cavities having geometric shapes, angles and dimensions. At least two of the cavities have different angles. Note that 9 cavities are shown with a first plurality of rectangular cavities, a second

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plurality of circular cavities, and a third plurality of triangular cavities defining 20 pairs of adjacent cavities, wherein 14 of the pairs have at least one dimension, such as base edge lengths, which is different between the two cavities of the pair. Thus, 70% of the pairs have at least one dimension which is different between the two cavities of the pair. Each of the cavities has a single opening.

4. Claims 20, 21, 33, 34, 36-45, 47-54, 98, 99, 101-106 and 108-111 are rejected under 35 U.S.C. 102(b) as being anticipated by Rochlis(-583).

Rochlis(-583) teaches a production tool suitable for use in manufacturing an abrasive article (col. 1, lines 50-56) which includes a plurality of cavities having different geometric shapes, angles and dimensions. The production tool can be a coating roll (fig. 19) or an etched (engraved) metal roll (col. 3, lines 52-63; col. 13, lines 15-17 and 62-67). The production tool can have 9 cavities as shown in figs. 21 and 22 with a first plurality of rectangular cavities, a second plurality of circular cavities, and a third plurality of triangular cavities defining 20 pairs of adjacent cavities, wherein 14 of the pairs have at least one dimension, such as base edge lengths, which is different between the two cavities of the pair. Thus, 70% of the pairs have at least one dimension which is different between

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the two cavities of the pair. At least one of the angles or base edge lengths of the first plurality is different from all the angles or base edge lengths of the second plurality and of the third plurality. At least one of the angles or base edge lengths of the second plurality is different from all the angles or base edge lengths of the first plurality and of the third plurality. Each of the cavities has a single opening.

5. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

This application currently names joint inventors. In considering patentability of the claims under 35 U.S.C. 103(a), the examiner presumes that the subject matter of the various claims was commonly owned at the time any inventions covered therein were made absent any evidence to the contrary.

Applicant is advised of the obligation under 37 CFR 1.56 to point out the inventor and invention dates of each claim that was not commonly owned at the time a later invention was made in order for the examiner to consider the applicability of 35

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U.S.C. 103(c) and potential 35 U.S.C. 102(e), (f) or (g) prior art under 35 U.S.C. 103(a).

6. Claims 17, 20, 21, 33-54 and 98-111 are rejected under 35 U.S.C. 103(a) as being unpatentable over Rochlis(-583).

As to claims 20, 21, 33, 34, 36-45, 47-54, 98, 99, 101-106 and 108-111, the 102 rejection above is based upon the interpretation of the alternatives for the production tool disclosed by Rochlis(-583) as being anticipatory. If applicants believe that the disclosed alternatives are NOT anticipatory, then it would have been obvious to one of ordinary skill in the art, at the time the invention was made, to modify the production tool of Rochlis(-583) with the alternatives disclosed by Rochlis(-583) because Rochlis(-583) explicitly discloses that the production tool can be modified with such disclosed alternatives.

As to claim 17, Rochlis(-583) does not disclose the cavities having a material-included angle with a value from 20 to 90 degrees. Note that Rochlis(-583) discloses that the cavities can have pyramidal shapes (col. 13, lines 51-58). As to claims 35, 46, 100 and 107, Rochlis(-583) discloses a production tool having 3 different types of cavities defining three pluralities or groups of cavities (figs. 21 and 22), but does NOT explicitly disclose a fourth plurality or group of

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cavities having a fourth different type of cavity. However, Rochlis(-583) discloses that the production tool can have different sizes (col. 2, lines 66-70; col. 6, lines 17-22; col. 9, line 61, to col. 10, line 52) and discloses that the production tool can have a plurality of different types of cavities (col. 13, lines 29-35). Therefore, it would have been obvious to one of ordinary skill in the art, at the time the invention was made, to modify the cavities of Rochlis(-583) to have a material-included angle with a value from 20 to 90 degrees because such an angle would have been found due to routine engineering in finding operable parameters for the apparatus and/or in optimizing the apparatus, In re Aller, 105 USPQ 233 and/or because Rochlis(-583) discloses that the cavities can be of different sizes, or to modify the production tool to have four pluralities or group of cavities having four different types of cavity because Rochlis(-583) discloses that the production tool can have a plurality of different types of cavities and/or because Rochlis(-583: figs. 21 and 22) discloses a production tool example having not just two but three pluralities or groups of cavities having three different types of cavities.

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7. Claims 17, 20, 21, 25-28, 33-54, 94-96 and 98-111 are rejected under 35 U.S.C. 103(a) as being unpatentable over Rochlis(-583).

If applicants intended a single opening to mean that the mold is a continuous integral mold with the single opening, then this rejection applies. Rochlis(-583) discloses the apparatus substantially as claimed as mentioned above. The mold of figs. 21 and 22 is a laminate mold composed of layers. It would have been obvious to one of ordinary skill in the art, at the time the invention was made, to modify the mold to be integral (i.e., have no layers) because generally there is no invention in making integral that which was before in several parts, In re Lockhart, 90 USPQ 214. See also In re Larson, 144 USPQ 347.

8. Claim 19 is allowed.

9. The nonstatutory double patenting rejection is based on a judicially created doctrine grounded in public policy (a policy reflected in the statute) so as to prevent the unjustified or improper timewise extension of the "right to exclude" granted by a patent and to prevent possible harassment by multiple assignees. See In re Goodman, 11 F.3d 1046, 29 USPQ2d 2010 (Fed. Cir. 1993); In re Longi, 759 F.2d 887, 225 USPQ 645 (Fed. Cir. 1985); In re Van Ornum, 686 F.2d 937, 214 USPQ 761 (CCPA 1982); In re Vogel, 422 F.2d 438, 164 USPQ 619 (CCPA 1970); and, In re Thorington, 418 F.2d 528, 163 USPQ 644 (CCPA 1969).

A timely filed terminal disclaimer in compliance with 37 CFR 1.321(c) may be used to overcome an actual or provisional rejection based on a nonstatutory double patenting ground provided the conflicting application or patent is shown to be commonly owned with this application. See 37 CFR 1.130(b).

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Effective January 1, 1994, a registered attorney or agent of record may sign a terminal disclaimer. A terminal disclaimer signed by the assignee must fully comply with 37 CFR 3.73(b).

10. Claims 17, 20, 21, 25-28, 33-54, 94-96 and 98-111 are provisionally rejected under the judicially created doctrine of obviousness-type double patenting as being unpatentable over claims 23, 24, 30-32, 89, 90, 92, 93 and 133-148 of copending Application No. 09/955,604. Although the conflicting claims are not identical, they are not patentably distinct from each other because it would be obvious to one of ordinary skill in the art at the time the invention was made to modify the apparatus of claims 23, 24, 30-32, 89, 90, 92, 93 and 133-148 of copending Application No. 09/955,604 by eliminating elements thereof because omission of an element and its function in a combination is an obvious expedient if the remaining elements perform the same functions as before, In re Karlson, 136 USPQ 184.

This is a provisional obviousness-type double patenting rejection because the conflicting claims have not in fact been patented.

11. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Joseph Leyson whose telephone number is (703) 308-2647. The examiner can normally be reached on M-F(8:30-6:00) First Friday Off.

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If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Wanda Walker can be reached on (703) 308-0457. The fax phone numbers for the organization where this application or proceeding is assigned are (703) 872-9306 for regular communications and (703) 872-9306 for After Final communications.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is (703) 308-0661.

*N*

jl

August 7, 2003

*James Mackey*  
JAMES P. MACKEY  
PRIMARY EXAMINER  
8/8/03

# INFORMATION DISCLOSURE STATEMENT BY APPLICANT

(Use as many sheets as necessary)

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Application Nur

09/520032

Filing Date

September 19, 2001

First Named Inventor

Hoopman, Timothy L.

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1722

Examiner Name

Joseph Leyson

Attorney Case Number

49933US031

## U.S. Patent Documents

Exam. Init.*	Cite No.	Document Number	Publication Date or Issue Date MM-DD-YYYY	Name of Patentee or Applicant of Cited Document	Pages, Columns, Lines, Where Relevant Passages or Relevant Figures Appear
		Doc. Number-(Kind Code if Known)			
	A1	US-			
	A2	US-			
	A3	US-			
	A4	US-			
	A5	US-			
	A6	US-			
	A7	US-			

## Foreign Patent Documents

Exam. Init.*	Cite No.	Foreign Patent Document		Publication Date MM-DD-YYYY	Name of Patentee or Applicant of Cited Document	Pages, Columns, Lines, Where Relevant Passages or Relevant Figures Appear	Translation (check if yes)	Sub
		City, Country	Doc. Number-(Kind Code if Known)					
JP	B1	JP	57-59054	09/24/1980			X	-
JP	B2	JP	7-164330	06/27/1995			*	-
JP	B3	JP	3-73276	03/28/1991			**	-
	B4							-

## OTHER PRIOR ART – NON PATENT LITERATURE DOCUMENTS

Exam. Init.*	Cite No.	Include name of the author (in CAPITAL LETTERS), title of the article (when appropriate), title of the item (book, magazine, journal, serial, symposium, catalog, etc.), date, page(s), volume-issue number(s), publisher, city and/or country where published
	C1	

\* JP 7-164330 claims priority to USSN 120,297 which is the same application from which U.S. Patent 5,489,235 issued. U.S. Patent No. 5,489,235 was cited in a previous Information Disclosure Statement dated June 7, 2000.

\*\* JP 3-73276 claims priority to USSN 347,663 which is the same application from which U.S. Patent 5,014,468 issued. U.S. Patent No. 5,014,468 was cited in a previous Information Disclosure Statement dated June 7, 2000.

\*Examiner: *Joseph Leyson*Date Considered: *8-7-03*

EXAMINER: Initial if reference considered, whether or not citation is in conformance with MPEP 609. Draw line through citation if not in conformance and not considered. Include copy of this form with next communication to applicant.

Information Disclosure Statement!